

REMARKS

This is regarding the response to Office Action of October 21, 2004 for patent application identified above. In this response, Applicant has amended Claims 1-6 in order to particularly point out and distinctly claim the subject matter that Applicant deems to be the invention. Applicant respectfully submits that the modifications to the claims are fully supported by the content of the originally filed application.

The rejection of previously filed Claims 4 (currently amended as Claim 5) under 35 U.S.C. §102(b) as being anticipated by Hess et al. (U.S. Pat. 5,503,504) and by Krings (U.S. Pat. 3,621,660), hereinafter respectively referred to as Hess et al., and Krings, is hereby traversed and reconsideration is respectfully requested.

Applicant respectfully submits that revised claim 5 is patentable over the cited reference, whether taken alone or in combination with known methods in the art.

Before responding to the rejection of the claims and arguments in the Office Action, Applicant would pass briefly in review the overall scope of the present invention relative to prior art.

The cited prior art of Hess et al., and Krings disclose apparatuses for sheeting trenches including large-size sheeting panels and spreader frames.

As disclosed by Hess et al. (U.S. Pat. 5,503,504), *a sheeting device having large size sheeting panels (2,4) supported against vertical support (1,3) which are arranged in pairs facing each other and are spaced-apart by at least one spreader frame (5). The sidewall (15,15') of the support (1,3) having C-shaped cross section are provided with legs (16,16') which are bent in parallel to the base wall (12), are opposing each other, and leave a wide gap between them.*

As illustrated in the FIG. 2 (Hess et al.), the sheeting plate 2 is provided in the inner side with a support 1, which is basically designed and perceived as a column to carry the load exerted on sheeting panel 2 while allowing the spreader frame 5 provided with rollers 11,17 to slide

within the support 1. Thus, the sheeting panel 2 has an inner side and an outer side, which are well defined relative to the interior of the trench and not interchangeable by meaning that the sheeting plate 2 is used in a unique way. The fact that the spreader frame 5 slides within the support 1 impose specific requirement in term of the size and strength the support 1 so that the volume of the sheeting panel is considerable in term of their storage and/or transportation. I another perspective, the sheeting plate 2 could not be used or combined with any other known shoring device like trench shield (because it can not be dragged within the trench), or slide rail shoring system (because it can not slide within guides provided on the rails). A limiting aspect of such shoring device is apparent when stacking them above each to the accuracy required for the alignment of supports 1.

As disclosed by Krings (U.S. Pat. 3,621,660), ... *With reference to the drawings, the building set according to the invention consists of two sheeting plates 1 facing each other, guide support 2 and tightening arrangement 3 cooperating with sheeting plates. ... Every guide support 2 consists of a fork shaped body, made up of a leg 5 and a leg 6 with the leg 5 being of a box section or similar section. The leg 5 is guided as a gliding element in one of the hollow section 4 and will be called an "inside" leg. The other or "outside" leg 6 of the guide support 2 is in the form of a U-shaped or C-shaped section carrier. Effectively, at least the outside leg is longer than the height of the sheeting plate 1 and may be sharpened on the bottom. The upper ends of the legs 5,6 project above the upper edge of the sheeting plate 1 and are connected rigidly with one another at their uppermost part. Between legs 5,6 there is a space of somewhat more than the thickness of the wall of the sheeting plate 1, which spacing is sufficient to make possible a relative movement between said plate 1 and the guide support 2.*

As shown in FIG.1 (Krings) the guide 2 having legs 5 and 6 is a support column (rail post) guiding the sheeting plate 1 which slides relatively to support 2. On the other hand, the tightening arrangement 3 (spreader frame) slides relatively to the support 2 or have pivoting connection via shoes 7,7' so that within each pair of supports, one support can move vertically independently from the other. This shoring device is within category of slide rail shoring system because it includes support 2 (rail post) which are longer comparing to the height of the sheeting

plates guiding these when sliding relative to the rail. Actually, the device comprises three components: sheeting plate 1, support 2 (rail), tightening arrangement 3 (spreader frame).

Applicant's revised Claim 5 defines a shoring device comprising a panel, which is provided laterally on either end with a guide. The guide does not assume other function that just guiding a strutting assembly or vice versa. Since the guide is placed laterally onto the panel, it does not interfere neither inner nor outer sidewall of the panel so that the panel could be used upside down or inside out relative to interior of the trench. Also, the panels could be associated with other type of shoring devices using panel guides fitting the guide of the panel. The pressure load on the panel is transmitted directly to the strutting assembly without intermediation of a support guide so that the guides are free from any solicitation. The implantation of the guide laterally on either end of the panel is not a choice of design but a novel concept rendering the panel versatile in many aspects as mentioned above and in the application.

Therefore, Applicant respectfully requests that the rejection of Claim 5 (previously filed as Claim 4), under 35 U.S.C. §102(b) as being anticipated by Hess et al. and Krings, as set forth in the Office Action be reconsidered and withdrawn.

With regard to Claim 6 (originally filed as claim 5), the cited reference of prior art of Krings (U.S. Patent 5,902,075) does not disclose a device including a shoring panel having two cutting edges which are positioned oppositely along the top and the bottom of the panel. Krings discloses *a trench falsework (shoring device), which includes a base box 3 made up of lining panels 5 held apart by braces 8. The panels making up the box have a flat edge 7 along the top and a cutting edge 6 along the bottom. The falsework system also includes at least one add-on box 4,12 designed to be used as an extra tier and made up of lining panels 5 which meet flush with those of the base box 3. The invention calls for lining panels 5 making up the raised box 4,12 to be of the same design of those in the base box 3.*

As illustrated in FIG.1 (Krings) the shoring device includes at least two boxes 3 and 4 stacked above each other oppositely so that the flat edge 7 are in contact. The invention consists of introducing a new way of staking together two or more trench boxes using specific connection

pieces of various type and shape. However, each panel 5 of each box 3,4 has only one cutting edge 6 and one flat top edge 7. This invention is relevant with regard the Applicant's invention by meaning that it shows the difficulties and the efforts made for finding a easy way of stacking above each other shoring device including panels having different design for the top and the bottom of the panel.

Applicants revised Claim 6 (previously filed as Claim 5) define a shoring device having a cutting edge along the top of the panel and a cutting edge along the bottom of the panels; the cutting edges being reverse to each other by meaning they are built in opposite sides of panels point outward. As the cutting edges on the top and the bottom of the panel matches, staking two or more of such devices is easy, because the cutting edge at the bottom of upper panel has full contact with cutting edges on the top of the lower panel.

Therefore, Applicant respectfully requests that the rejection of Claim 6 (previously filed as Claim 4), under 35 U.S.C. §102(b) as being anticipated by Krings, as set forth in the Office Action be reconsidered and withdrawn.

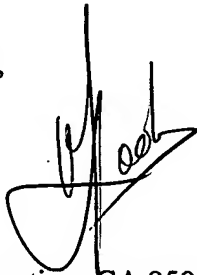
CONCLUSION

For all the above reasons, Applicant submits that the specifications and claims are now in proper form, and that the claims all define patentably over the prior art. Therefore, Applicant submits that this application is now in condition for allowance, which action he respectfully solicits.

Conditional Request for Constructive Assistance

Applicant has amended the specification and claims of this application so that they are proper, definite, and define novel structure, which is also unobvious. If, for any reason this application is not believed to be in full condition for allowance, Applicant respectfully requests the constructive assistance and suggestions of the Examiner pursuant to M.P.E.P. §2173.02 and §707.07(j) in order that the undersigned can place this application in allowable condition as soon as possible and without the need for further proceedings.

Very respectfully,
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